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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/852,220

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Shunpei Yamazaki

SEL 259

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EXAMINER

ABDULSELAM, ABBAS I

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

12/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/852,220	<b>Applicant(s)</b> YAMAZAKI ET AL.	
	<b>Examiner</b> ABBAS I. ABDULSELAM	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09/08/08.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28,29,31-33,35-37,40,41,43,45-51,57-60,66-69 and 74-77 is/are allowed.
- 6) ☒ Claim(s) 7-10,12,53,62 and 70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/08/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Disposition of Claims: Claims pending in the application are 7-10,12,28,29,31-33,35-37,40,41,43,45-51,53,57-60,62,66-70 and 74-77.

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### **DETAILED ACTION**

1. This office action is in response to a communication filed on 09/08/08. Claims 7-10, 12, 28-29, 31-33, 35-37, 40-41, 43, 45-51, 53, 57-60, 62, 66-70 and 74-77 are pending. Claims 1-6, 11, 13-27, 30, 34, 38-39, 42, 44, 52, 54-56, 61, 63-65 and 71-73 are canceled.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 7-10, 12, 53, 62 and 70 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 9, 12, 53 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (USPN 6469455) in view of McKnight (USPN 5959598).

Regarding claims 7, 9, 53 and 62, Inoue (USPN 6469455) teaches a light emitting element driving circuit for optical communications such as a camera, and illustrates as shown in FIG. 1, a light emitting element driving circuit including an electric current source 1, a light

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emitting element 2, a capacitor 4, and a current switch 3 as a first switching part. Inoue teaches the light emitting element driving circuit shown in FIG. 4 is provided based on the basic constitution shown in FIG. 1, such that the current switch 3 is constituted of two n-channel MOSFET's 31, 32, and illustrates as shown in Fig. 6 that the n-channel MOSFET 33 has a gate terminal input with the output signal from the inverter 61 (col. 1, lines 53-54, col. 2, lines 21-27, col. 6, lines 17-37, and col. 10, lines 62-66).

While Inoue illustrates a current source as shown in Fig. 2 has only n-channel transistors, and a switch 3 shown in Fig. 4, is constituted of two n-channel MOSFET's 31, 32,

Inoue does not teach “ the display portion and the driver circuit do not comprise a P-channel type semiconductor element”.

McKnight on the other hand teaches as illustrated in Fig. 9B, an analog frame-buffer pixel circuit 951 including, data wires 778, transistor 781, and Pixel mirror 718 (pixel electrode), which is driven to data voltage level through pull-up and pull-down transistors such that such that the analog frame-buffer pixel circuit 951 uses only n-FETs (col. 19, lines 43-46).

Hence, by using only n-FETs, the analog frame-buffer pixel circuit 951 shown in Fig. b excludes p-FETs.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Inoue's light emitting element driving circuit (as shown in Figs, 1, 4, & 6) with McKnight's use of only nFETs as illustrated in Fig. 9B, the use of which helps achieve amore compact design by utilizing one less transistor and two fewer addressing wires per pixel as taught by McKnight.

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5. Claims 8, 10 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (USPN 6469455) in view of in view of McKnight (USPN 5959598) and further in view of Wagner et al. (USPN 6670599).

Regarding claims 8, 10 and 70, Inoue does not teach the use of a plastic substrate, and semiconductor element being a thin film transistor including a microcrystalline semiconductor film.

Wagner et al. (USPN 6670599) on the other teaches the use of microcrystalline silicon-germanium alloys with respect to photodiodes as shown in Fig. 3, and discloses that semitransparent PIN photodiodes are fabricated on a flexible plastic substrate (col. 21, lines 51-59).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Inoue's light emitting element, which can be light emitting diode (as modified by McKnight) with Wagner's use of microcrystalline alloy along with a plastic substrate, because the use of microcrystalline alloy along with a plastic substrate helps achieve enhanced conductivity flexibility and transparency as taught by Wagner.

***Allowable Subject Matter***

6. Claim 28-29, 31-33, 35-37, 40-41, 43, 45-51, 57-60, 66-69 and 74-77 are allowed.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABBAS I. ABDULSELAM whose telephone number is (571)272-7685. The examiner can normally be reached on Monday through Friday from 9:00A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu, can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Abbas I Abdulsalam/

Primary Examiner, Art Unit 2629

December 14, 2008